

REMARKS

By this amendment, claims 1-11, 13-15, 18-20, 22, 23, and 25-37 are amended. These amendments are made to even more clearly recite the claimed invention, do not add new matter and are fully supported by the specification. Reconsideration and withdrawal of the rejections in the outstanding Office Action are respectfully requested in view of the foregoing amendments and the following remarks.

Allowable Subject Matter

Initially, Applicant thanks the Examiner for indicating that claims 13, 20, 27, 29, and 31 are allowed; and that claims 2, 3, 15, 19, 22-25, and 32-37 contain allowable subject matter.

Claim Rejections under 35 U.S.C. § 112, second paragraph

The Office Action rejects claims 22-25, 34, and 36 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Specifically, the Examiner indicates that claim 22 should recite “the program comprising” (rather than the “storage medium comprising”). In response, Applicant notes that claim 22 has been amended to comply with the Examiner’s suggestion. Accordingly, Applicant respectfully requests withdrawal of the rejection.

The Examiner asserts that claims 34 and 36 are indefinite because there is insufficient antecedent basis for the term “the actual data” in lines 1-2. Without agreeing with or acquiescing to the rejection, Applicant notes that claims 34 and 36 have been amended to depend from claims 32 and 33, respectively (which both recite “actual data”). Accordingly, Applicant respectfully requests withdrawal of the rejection.

Claim Rejections under 35 U.S.C. § 102(e)

The Office Action rejects claims 1, 4, 5, 16-18, 26, 28, and 30 under 35 U.S.C. § 102(e) as being anticipated by Hejlesberg et al. (U.S. Patent No. 6,151,602, hereinafter “HEJLESBERG”). Applicant respectfully disagree.

Initially, Applicant notes that the claims recite (using claim 1 as a non-limiting example):

An information provisioning apparatus comprising:

an acquirer configured to acquire a data stream of content that has timewise continuity and that is composed of a plurality of segments, and metadata that includes information related to the content and information related to the segments;

a unitizer configured to divide metadata, corresponding to segments subjected to processing, into metadata processing units set so as to make possible partial execution of the metadata; and
a capsulizer configured to capsulize data stream packets and metadata processing unit packets, unit by unit, so as to make possible partial execution of the metadata, and to generate a capsulized stream.

In contrast, the information retrieval system disclosed in HEJLESBERG processes response data of the retrieval by specifying metadata immediately after the header and attributes of the metadata on a per packet basis. For example, when database is created in disk, HEJLESBERG teaches specifying a header, metadata, and attributes in a database. The process disclosed in HEJLESBERG is used for retrieval of data from a database. In other words, HEJLESBERG teaches that the response data is included in one packet, but does not teach that bulk data is divided and transmitted. Therefore, HEJLSBERG is not suited for processing bulk data (e.g., AV data, such as video and audio) that have timewise continuity. Thus, HEJLSBERG differs from the claimed invention in that HEJLSBERG is not directed to processing data of “content that has timewise continuity” (as recited in the claims). For this reason alone, HEJLSBERG fails to disclose all of the elements of the claimed invention.

Furthermore, HEJLESBERG does not allow for “partial execution of...metadata,” as recited in the claims. As shown in FIG. 4 of HEJLSBERG, metadata is included in a data packet in advance, and metadata and data packets are associated one-to-one by managing headers and metadata, and data packets in a nested structure. According to HEJLSBERG, when there is no header in a data packet, by using the information of the previous header, metadata and data packets are associated one-to-one in the same manner. In other words, when there is a header, metadata is associated with the data packet using the header, and, when there is no header, sequential control is executed so as to make metadata associated with the data packet using the previous header.

In contrast, as shown in FIG. 7 of the present specification, the relationship between the metadata and data packets (Audio ES, Video ES) of the disclosed invention differs significantly from that in HEJLSBERG. As described in the present specification, ES (elementary stream) can manage and transmit the metadata independently from the corresponding data, facilitating “partial execution of the metadata” (as recited in the claims). In HEJLESBERG, metadata packets are associated with data packets; thus, metadata depends heavily upon data. Therefore, the system in HEJLESBERG does not allow for partial execution of metadata.

Moreover, HEJLESBERG fails to disclose a “unitizer configured to divide metadata, corresponding to segments subjected to processing from the segments, into processing units (MPU) set so as to make possible partial execution of the metadata” (as recited in the claims). Because HEJLESBERG is directed to processing a small amount of data (e.g., for data retrieval in database), HEJLESBERG does not teach or even suggest dividing metadata in order to facilitate partial execution of the metadata. For at least each of these reasons, Applicant submits

that HEJLESBERG fails to disclose each and every element of the claimed invention, and respectfully request withdrawal of the rejection.

Claim Rejections under 35 U.S.C. § 103(a)

The Office Action rejects claims 6-11 under 35 U.S.C. § 103(a) over HEJLESBERG. For at least the reasons discussed above, Applicant submits that HEJLESBERG fails to disclose or render obvious all of the elements recited in the independent claims. As discussed above, HEJLESBERG does not teach or suggest, *inter alia*, “a unitizer configured to divide metadata, corresponding to segments subjected to processing, into metadata processing units set so as to make possible partial execution of the metadata.” Thus, Applicant submits that if one attempted to modify the teachings of HEJLESBERG as suggested by the Examiner, one would still fail to arrive at Applicant’s claimed invention. Furthermore, dependent claims 6-11 are submitted to recite further patentable subject matter of the invention and therefore are also believed to be allowable over the cited publications. Accordingly, Applicant submits that the ground for the 35 U.S.C. §103 rejection no longer exists, and respectfully requests that it be withdrawn.

As such, allowance of the dependent claims is deemed proper for at least the same reasons noted above for the independent claims, in addition to reasons related to their own recitations. Accordingly, Applicant respectfully requests reconsideration of the outstanding rejections and an indication of the allowability of all of the claims in the present application.

SUMMARY AND CONCLUSION

Reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate. Applicant has made a sincere effort to place the present invention in condition for allowance and believes that he has now done so.

Should an extension of time be necessary to maintain the pendency of this application, the Commissioner is hereby authorized to charge any additional fee to Deposit Account No. 19-0089.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,
Koichi EMURA

Bruce H. Bernstein
Reg. No. 29,027

William Pieprz
Reg. No. 33,630

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GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191